ACCELEROMETER BASED EXTENDED DISPLAY

RELATED APPLICATIONS

[0001] The present invention benefits from U.S.P.T.O. application Ser. No. 11/604,103 filed Nov. 26, 2006 titled "Portable Display with Improved Functionality," by Paul H. Harmon, assigned to the assignee of the present invention, and which is hereby incorporated by reference in it entirety herein.

TECHNICAL FIELD

[0002] Embodiments in accordance with the present invention generally pertain to portable electronic devices. More particularly, embodiments of the present invention are related to extending the display area of portable electronic devices.

BACKGROUND

[0003] Recent technology trends have allowed mobile access of content using cellular telephones, laptop computers, and personal digital assistants (PDAs). As a result, there is a greater demand for content, including online content, which is accessed by mobile devices. However, many users are finding it difficult to access the same content using mobile devices which they can easily access with their desktop computers. In other words, the content that is designed for display on a desktop computer is often not as accessible, or may be incomprehensible, when using a mobile device.

[0004] Application and web portal developers have designed their product to be compatible with a desktop computer having certain minimum requirements. This was economically feasible in that they could assume they were accessible to a majority of users who were trying to access their content via desktop computers.

[0005] For example, application developers design their content to be compatible with desktop computers because they are the devices used by the majority of users. Thus, the application developer may assume that the content will be viewed upon a desktop computer having a minimum display resolution of 600×800 pixels and running one of the most widely used operating systems and/or web browsers. This assumed operating environment is usually sufficient for the majority of devices accessing their content. The developers may also typically assume the desktop computer uses a mouse and an alpha-numeric keyboard as the user input devices. Web application developers also operated using the similar formatting assumptions.

[0006] However, mobile devices utilize displays which have much smaller display capabilities than a typical desktop computer and also a wider variety of operating systems. Because of the greater number of operating environments implemented in the mobile market, it is not economically feasible for application and/or web portal developers to create a different product for each possible environment. Additionally, because the greatest market share is still dedicated to desktop environments, developers still format their products for that operating environment. As a result, entire pages of content (e.g., an e-mail message) that can be displayed upon a desktop computer often cannot be displayed in a usable manner upon mobile devices such as cellular telephones or PDAs. Thus, the users of mobile devices are often required to scroll through the page being displayed in order to find the content which they are seeking. This is often inconvenient for the users and may be difficult due to the small size factors of the devices being used.

[0007] In other words, users who can access content from their desktop computers may find it difficult or burdensome to access the same content from a mobile device. Additionally, the limited capabilities of some mobile devices make it difficult or burdensome for some users to edit scroll through the content using their mobile devices.

SUMMARY OF THE INVENTION

[0008] Embodiments of the present invention recite a method and system for displaying data on a portable electronic device. In one embodiment, a first portion of accessed data is displayed on a portable electronic device. A motion detector responsive to motion in at least a single direction then detects a movement of the portable electronic device from a first position to a second position. In response to the motion detector detecting the movement, a second portion of the accessed data is automatically displayed by the portable electronic device.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] The accompanying drawings, which are incorporated in and form a part of this specification, illustrate embodiments of the invention and, together with the description, serve to explain the principles of the invention:

[0010] FIG. **1** depicts an apparatus for improving display functionality in accordance with an embodiment of the present invention.

[0011] FIG. **2** illustrates the basic steps of a method for improving display functionality in accordance with embodiment of the present invention.

[0012] FIG. **3** is a flow chart of an exemplary switch algorithm that is configured to select a mode of operation of an apparatus for improving display functionality in accordance with embodiments of the present invention.

[0013] FIG. **4** is a block diagram of an exemplary portable electronic device in accordance with embodiments of the present invention.

[0014] FIG. **5** is a block diagram of another exemplary portable electronic device in accordance with embodiments of the present invention.

[0015] FIG. **6**A is a perspective view of a portable electronic device used in accordance with embodiments of the present invention.

[0016] FIG. **6**B shows accessed portions of accessed data which are displayed in accordance with embodiments of the present invention.

[0017] FIG. **7** is a block diagram of an exemplary electronic data accessing device in accordance with embodiments of the present invention.

[0018] FIG. **8** is a perspective view of a portable electronic device used in accordance with embodiments of the present invention.

[0019] FIG. **9** is a flowchart of a method for displaying data on a portable electronic device in accordance with embodiments of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

[0020] In the following detailed description of the present invention, numerous specific details are set forth in order to provide a thorough understanding of the present invention.